

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 2-21 have been renumbered 1-20 in the manner stated in detail below.

The application has also been amended as follows to conform to the renumbering of claims upon allowance by the examiner.

The claims have been amended as follows:

1. An open-type disposable diaper configured by a front waist region, a rear waist region and a crotch region extending between said front and rear waist regions, said front and rear waist regions having a body facing surface and an undergarment facing surface opposed to said body facing surface, said diaper being contoured by front and rear end zones extending in parallel to each other in a waist-surrounding direction and transversely opposite lateral zones extending in parallel to each other in back-and-forth direction crossing said waist-surrounding direction, said transversely opposite lateral zones in one of said front and rear waist regions being formed with first wings extending in said waist-surrounding direction, said first wings are respectively provided on said body facing surface with first fastener means and said undergarment facing surface in the other of said front and rear waist regions being provided with second fastener means on which said first fastener means may be detachably anchored, said disposable diaper further comprising: said first wings being elastically stretchable in said waist-surrounding direction and said undergarment facing surface in said other waist region being provided in a vicinity of said second fastener means with anti-slip zones each

adapted to come in contact with said body facing surface of said wings and to exhibit an average kinetic frictional force of 0.5 N or higher under a load of 58.23 g/9 cm² and an average kinetic frictional force of 5 N or lower under a load of 340 g/9 cm² relative to said body facing surface as said first fastener means being anchored on said second fastener means;
wherein elastic fibers made of a plastic elastomer and having a fiber length of 5 to 100 mm are mixed with inelastic fibers made of a thermoplastic material having a fiber length of 5 to 100 mm in said anti-slip zones.

2. The disposable diaper according to claim 1, wherein said anti-slip zones are formed so as to be placed aside from said lateral zones toward a center line bisecting a width of said diaper; said diaper further comprising, between respective said anti-slip zones and respective said lateral zones, slip-zones each exhibiting an average kinetic frictional force lower than said average kinetic frictional force exhibited by each of said anti-slip zones.
3. The disposable diaper according to claim 1, wherein a weight ratio of said elastic fibers and inelastic fibers in each said anti-slip zone is in a range of 8:2 to 5:5.
4. The disposable diaper according to claim 3, wherein said anti-slip zone comprises a mixture of said elastic fibers and inelastic fibers bonded to a sheet material which is any one of a nonwoven fabric, a woven fabric and a film.
5. The disposable diaper according to claim 4, wherein said inelastic fiber and said sheet material, which is the nonwoven fabric, contain thermoplastic material having substantially the same melting points.
6. The disposable diaper according to claim 1, wherein said lateral zones are partially broadened in said waist-surrounding direction to form second wings in said other waist region and said anti-slip zones are formed so as to be placed aside from distal end portions of said second wings toward said center line bisecting the width of said diaper.
7. The disposable diaper according to claim 6, wherein said second wing is provided in a zone placed aside to said distal end portion with a slip-zone having said average kinetic frictional force lower than that of said anti-slip zone.
8. A disposable diaper, comprising: a main portion comprising a front waist region, a rear waist region and a crotch region extending in a longitudinal direction of said diaper between said front and rear waist regions, said main portion further comprising an inner surface adapted to face a wearer in use and an outer surface adapted to face away from the wearer in use; a pair of wing portions extending outwardly in a transverse direction of said diaper from transversely opposite sides of said main portion in one of said waist regions, each of said wing portions comprising an inner surface adapted to face the wearer in use and an outer surface adapted to face away from the wearer in use, each of said wing portions further comprising a distal end and a proximal end which is closer to the respective one of the transversely opposite sides of said main portion than the distal end; fastening elements on the inner surfaces and at the distal ends of said wing

portions, the proximal ends of said wing portions being free of said fastening elements; a landing zone on the outer surface of said main portion in the other of said waist regions, said fastening elements being releasably attachable to said landing zone for attaching said waist regions together; and antislip zones on the outer surface of said main portion in the other of said waist regions and on opposite sides of said landing zone, said antislip zones being contactable with predetermined areas of the inner surfaces of the proximal ends of said wing portions, when said wing portions are attached to said landing zone, to resist relative movement between the predetermined areas of the proximal ends of said wing portions and the other of said waist regions; wherein the antislip zones comprise a mixture of elastic fibers made of a plastic elastomer and inelastic fibers made of a thermoplastic material.

9. The disposable diaper according to claim 8, wherein said transversely opposite lateral zones in said crotch region are provided with leg elastic members extending further into said front and rear waist regions and said anti-slip zones are formed so as to cover parts of said leg elastic members or so as to lie on respective extensions of said leg elastic members in said longitudinal direction.

10. The disposable diaper according to claim 8, wherein said elastic fibers are continuous elastic fibers and said inelastic fibers are continuous inelastic fibers; a weight ratio of said elastic fibers and inelastic fibers in each said anti-slip zone is in a range of 8:2 to 5:5; said mixture of said elastic fibers and inelastic fibers is bonded to a nonwoven fabric that defines the outer surface of said main portion in the other of said waist regions; and said inelastic fiber and said nonwoven fabric contain thermoplastic materials having substantially the same melting points.

11. The disposable diaper according to claim 8, wherein a weight ratio of said elastic fibers and inelastic fibers in each said anti-slip zone is in a range of 8:2 to 5:5; said mixture of said elastic fibers and inelastic fibers is bonded to a nonwoven fabric that defines the outer surface of said main portion in the other of said waist regions; and a plastic ingredient of said non-woven fabric is exactly the same as that of said inelastic fibers.

12. A disposable diaper, comprising: a main portion comprising a front waist region, a rear waist region and a crotch region extending in a longitudinal direction of said diaper between said front and rear waist regions, said main portion further comprising an inner surface adapted to face a wearer in use and an outer surface adapted to face away from the wearer in use; a pair of wing portions extending outwardly in a transverse direction of said diaper from transversely opposite sides of said main portion in one of said waist regions, each of said wing portions comprising an inner surface adapted to face the wearer in use and an outer surface adapted to face away from the wearer in use, each of said wing portions further comprising a distal end and a proximal end which is closer to the respective one of the transversely opposite sides of said main portion than the distal end; fastening elements on the inner surfaces and at the distal ends of said wing portions, the proximal ends of said wing portions being free of said fastening elements; a landing zone on the outer surface of said main portion in the other of said waist regions, said fastening elements being releasably attachable to said landing zone for attaching said waist regions together; antislip zones on the outer surface of said main portion in

the other of said waist regions and on opposite sides of said landing zone, said antislip zones being contactable with the inner surfaces of the proximal ends of said wing portions when said wing portions are attached to said landing zone; and slip zones on the outer surface of said main portion in the other of said waist regions, each of said antislip zones being positioned in said transverse direction between one of the slip zones and the landing zone, said slip zones being also contactable with the inner surfaces of the proximal ends of said wing portions when said wing portions are attached to said landing zone; wherein a kinetic friction coefficient between the antislip zones and the inner surfaces of the proximal ends of said wing portions is greater than that between the slip zones and the inner surfaces of the proximal ends of said wing portions; and wherein each of the antislip zones comprises a fibrous mixture of elastic fibers and inelastic fibers.

13. The diaper of claim 12, wherein the wing portions are elastically stretchable in the transverse direction; and when the inner surfaces of the proximal ends of the wing portions come into contact with the antislip and slip zones at first and second areas, respectively, the greater kinetic friction coefficient exhibited by the antislip zones provides resistance to movement of the first area of said wing portions relative to the other of said waist regions, whereas the lower kinetic friction coefficient exhibited by the slip zones allows the second area of said wing portions to be stretchable in the transverse direction thereby enhancing fitting of the diaper around the wearer's waist.

14. The diaper of claim 13, wherein the slip zones comprise said inelastic fibers and are free of said elastic fibers.

15. The diaper of claim 13, further comprising strip members attached to the transversely opposite sides of the main portion in the other of said waist regions, each said strip members comprising a base body having a first region and a second region, said second region defining one of the slip zones; and the fibrous mixture bonded to the first region but not to the second region of said base body, said fibrous mixture defining one of the antislip zones.

16. The diaper of claim 15, wherein said base body, including, said second region, comprises a non-woven fabric of the inelastic fibers and is free of said elastic fibers.

17. The diaper of claim 15, wherein each of the proximal ends of the wing portions comprises a base elastic layer elastically stretchable in the transverse direction; and a fibrous layer of inelastic fibers disposed on said base elastic layer to define the inner surface of said proximal end of the wing portion, said fibrous layer exhibiting the greater kinetic friction coefficient with the fibrous mixture of the respective antislip zone than with the base body of the respective slip zone.

18. The diaper of claim 13, further comprising strip members attached to the outer surface of the main portion at the transversely opposite sides thereof in the other of said waist regions, each of said strip members defining one of the slip zones and one of the antislip zones; wherein the kinetic friction coefficient between the antislip zones and the first

areas of the wing portions is greater than that between said first areas and the outer surface of said main portion in the other of said waist regions.

19. The diaper of claim 8, further comprising strip members attached to the outer surface of the main portion at the transversely opposite sides thereof in the other of said waist regions, each of said strip members defining one of the slip zones; wherein a kinetic friction coefficient between the antislip zones and the predetermined areas of the proximal ends of said wing portions is greater than that between said predetermined areas and the outer surface of said main portion in the other of said waist regions.

20. The disposable diaper according to claim 17, wherein the elastic fibers have a fiber length of 5 to 100 mm and the inelastic fibers have a fiber length of 5 to 100 mm; and a weight ratio of said elastic fibers and inelastic fibers in each said anti-slip zone is in a range of 8:2 to 5:5; said base body is a nonwoven fabric; and a plastic ingredient of said non-woven fabric is exactly the same as that of said inelastic fibers. -----

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE J. HAND whose telephone number is (571)272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Page 7

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